

## NavGuard® 501 Submarine Anti-Jam GPS Enhancement (SAGE)

### Capabilities and Features

Developed for the Submarine OE-538B Antenna System but can support the requirements for Global Position System (GPS) Anti-Jam (AJ) and GPS Military-Coded (M-Code) capabilities. Its small size and feature set make it useful across a broad array of ground combat platforms, support platforms, Command and Control nodes with network management responsibilities or network timing dependent on GPS signals, it ensures that clean GPS timing signals are available when they are needed. The system is a cost effective alternative when systems must operate in GPS contested or denied (NAWWAR) environments. It can drive multiple GPS devices from a single antenna and provide all the benefits listed to all the devices it is connected to. It is C/A, SAASM and M-Code Compatible



#### High level Features

- 5 channel design, simultaneous dual frequency (L1 and L2) GPS protection
- Supports Iridium Communications
- Minimal group delay
- Compatible with any GPS receiver
- Ultra compact, low power, low cost
- L-shaped design allows for cable bend
- Tailorable size, weight and power

#### Performance Metrics

- Dynamics: Suitable for ground and sea applications
- Mitigates multiple CW, partial band, broadband and pulsed jammers even under high dynamics
- Uses multiple element spatial temporal adaptive filtering (STAP)
- Provides jamming suppression against multiple types of high power jammers

#### External Interface:

- Multiple ports, RS-232 / RS-422 and discretes
- GPS RF output, dual L1/L2 outputs with adjustable power levels
- Receiver: Compatible with C/A, SAASM, and M-Code Receivers
- User Application Processor: UART
- Temperature: -40 to +85 C
- Codes/Frequencies: L1/L2 simultaneous, C/A and P(Y)

#### SWAP Metrics

- Size: 1.364" x 3" x 5.73"
- Weight: < 1.65 lbs (Including Antenna)
- Power: < 15 Watts

NavGuard® is a registered trademark of Mayflower Communications Company, Inc.

• Sponsored by GPS Directorate and managed by Navy SPAWAR Systems Center, San Diego, CA.